

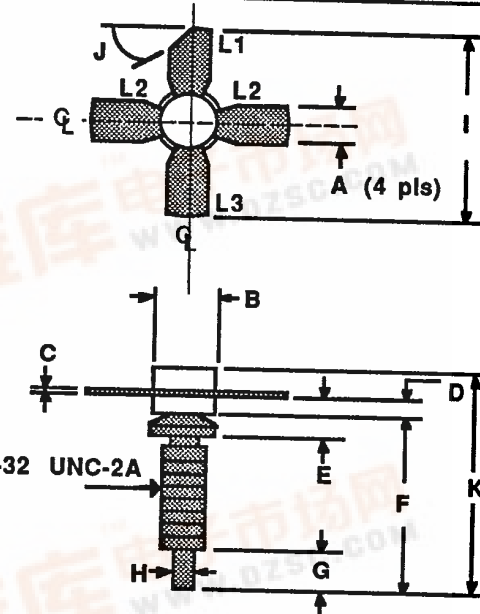
GENERAL DESCRIPTION

The B30-12 is designed for VHF land mobile applications delivering 30 watts of RF power output from a 12.5 volt supply and operates over the 150-175 MHz frequency band.

B30-12

30 WATTS - 12.5 VOLTS
150-175 MHz

LAND MOBILE



DIM	Millimeter	TOL	inches	TOL
L1 : C				
L2 : E				
L3 : B				
A	5.71	.13	.225	.005
B	9.52 DIA	.13	.375 DIA	.005
C	0.13	.02	.005	.001
D	1.78	.13	.070	.005
E	4.06	.13	.160	.005
F	14.59	.25	.585	.010
G	3.30	.13	.130	.005
H	1.52	.13	.060	.005
I	25.40	.25	1.000	.010
J	45°	5°	45°	5°
K	19.00	REF	.748	REF

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C Case Temperature 65 W

Maximum Voltage and Current

BVces Collector to Emitter Voltage 36 V

BVebo Emitter to Base Voltage 4.0 V

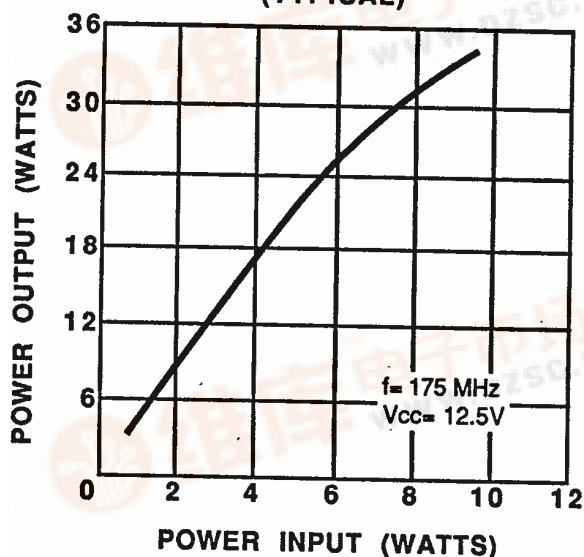
Ic Collector Current 8.0 A

Maximum Temperatures

Storage Temperature -65 to +150°C

Operating Junction Temperature +200°C

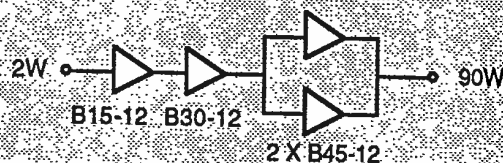
POWER OUTPUT VS POWER INPUT (TYPICAL)



TYPICAL AMPLIFIER LINE UP

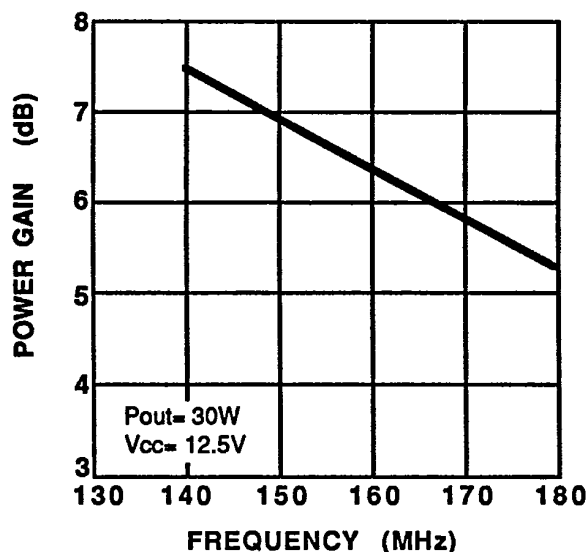
Vcc=12.5 Volts

Frequency Range= 150-175 MHz



B30-12-2**ELECTRICAL CHARACTERISTICS¹**

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f = 175 MHz V _{cc} = 12.5V	30			Watts
P _{in}	Power Input				8.5	Watts
P _g	Power Gain			6.0		dB
η_c	Collector Efficiency			60		%
VSWR	Load Mismatch Tolerance				$\infty:1$	
BV _{ebo}	Breakdown Voltage (Emitter to Base)	I _c = 0A, I _e = 5mA	4.0			Volts
BV _{ces}	Breakdown Voltage (Collector to Emitter)	V _{be} = 0A, I _c = 20mA	36			Volts
BV _{ceo}	Breakdown Voltage (Collector to Emitter)	I _b = 0A, I _c = 50mA	18			Volts
C _{ob}	Capacitance- Collector to Base	V _{cb} = 12V, I _e = 0		110		pF
h _{fe}	DC-Current Gain	V _{CC} = 5.0V, I _C = 1.0A	20			
θ_{jc}	Thermal Resistance				2.9	°C/W

Note 1: T_c = +25°C unless otherwise specified**POWER GAIN VS FREQUENCY
(TYPICAL)**

B30-12-3

